

### **Abstract**

A method of measuring at least one parameter associated with a portion of a sample having formed thereon one or more structures with at least two zones each having an associated zone reflectance property. The method includes the steps of illuminating the zones with broadband light, and measuring at least one reflectance property of light reflected from the at least two zones. The measurement includes a substantial portion of non-specularly scattered light, thereby increasing the quality of the measurement. The method further includes the step of fitting a parameterized model to the measured reflectance property. The parameterized model mixes the zone reflectance properties of the zones to account for partially coherent light interactions between the two zones.